

**National EPA-Tribal Science Council (TSC)
Conference Call Roll Call and Key Discussion Points
Monday, September 16, 2019
2:00 – 3:30 p.m. EDT**

Roll Call

Tribal Caucus

- ☐ Region 1: William (Billy) Longfellow
(Passamaquoddy at Sipayik)
- ☒ Region 1 *Alternate*: Trevor White
(Passamaquoddy Tribe of Indian Township)
- ☒ Region 2: Neil Patterson (Tuscarora Nation)
- ☒ Region 4: Katie Tiger (Eastern Band of
Cherokee Indians)
- ☐ Region 4 *Alternate*: Jerry Cain (Mississippi
Band of Choctaw Indians)
- ☒ Region 5: Jeff Mears (Oneida Nation), Chair
- ☐ Region 6: Craig Kreman (Quapaw Tribe)
- ☐ Region 6 *Alternate*: Vacant
- ☒ Region 7: Page Hingst (Santee Sioux Nation of
Nebraska)
- ☐ Region 7 *Alternate*: Misha Mazurkewycz (Ponca
Tribe of Nebraska)
- ☒ Region 8: Joshua Tweeton (Spirit Lake Tribe)
- ☐ Region 8 *Alternate*: Allyson Two Bears
(Standing Rock Sioux Tribe)
- ☒ Region 9: Carlotta (Carley) Whitecrane (Karuk
Tribe)
- ☐ Region 9 *Alternate*: Vacant
- ☒ Region 10: Lee Juan Tyler (Shoshone-Bannock
Tribes)
- ☐ Region 10 *Alternate*: Kelly Wright (Shoshone-
Bannock Tribes)
- ☐ Region 10 (Alaska): Vacant

Support Personnel

- ☒ Monica Rodia, TSC Executive Secretary
- ☒ Kristen LeBaron, Support Contractor (SCG)

Action Items

1. TSC members will read the monthly teleconference minutes to ensure that they are aware of current TSC activities, news and action items.
2. Lon Kissinger volunteered to contact Santina Gay of Region 10 to obtain an update on the usefulness of data obtained from the Local Environmental Observer (LEO) Network.
3. Tribal Representatives will submit comments about EPA's guiding principles for citizen science to Monica Rodia and José Zambrana, who will forward them to Jay Benforado.

EPA Caucus

- ☐ Region 1: Vacant
- ☒ Region 2: Kai Tang
- ☐ Region 3: Regina Poeske
- ☐ Region 4: Dawn Taylor
- ☒ Region 5: Luke Hullinger
- ☐ Region 5 *Alternate*: Carole Braverman
- ☒ Region 6: Alexandra (Alexa) Olson
- ☐ Region 7: Christopher Taylor
- ☐ Region 7 *Alternate*: Amber Tilley
- ☐ Region 8: Alfred Basile
- ☐ Region 9: Rebecca Jamison
- ☒ Region 10: Lon Kissinger
- ☐ AIEO: Francine St. Denis
- ☐ OAR: Amanda Kaufman
- ☐ OCHP: Ted Coopwood
- ☒ OCSPP: Karen Hamernik
- ☐ OCSPP *Alternate*: Amanda Hauff
- ☒ OLEM: David Charters
- ☒ OMS: Beth Jackson
- ☐ ORD: David Jewett
- ☒ ORD: José Zambrana, Chair
- ☒ OW: Karen Gude

Invited Speakers and Guests

- ☒ Jay Benforado, EPA ORD
- ☒ Stephen Wolfe, Seneca-Cayuga Nation

4. Tribal Representatives will submit their travel preference forms for the upcoming face-to-face meeting to Monica as soon as possible and will include any plans to rent a car.
5. Tribal Representatives who have questions about the travel preference form will contact Monica.
6. Page Hingst will send a flyer to Monica about the upcoming webinar on raising environmental awareness through public outreach.

Key Discussion Points

Roll Call and Distribution of Meeting Minutes

- Monica took the roll and explained that the August monthly call notes had been finalized and distributed to the members.
- TSC members should read the minutes each month to ensure that they are aware of TSC activities, news and action items.

Caucus Report Outs

- Jeff Mears reported that the Tribal Caucus had finished the process of soliciting nominations for Tribal Co-Chair. Of the five nominees, two accepted; the next step is the election.
- José reported that during its last call, the EPA Caucus had discussed the transition to a new EPA Co-Chair and an opportunity for ORD consultation.

Outreach and Coordination on the Draft EPA Vision for Citizen Science, Jay Benforado, Chief Innovation Officer, Office of the Science Advisor, Office of Research and Development, EPA

- EPA's National Advisory Council for Environmental Policy and Technology (NACEPT) published two reports advising the EPA Administrator on the use of citizen science at EPA. Jeff serves on NACEPT and ensured that the tribal perspective was included in the reports, including the value of incorporating citizen science into tribal work and building on any actions or frameworks that already exist.
- Jay provided the TSC with a preview of a draft future vision and guiding principles for using citizen science at EPA and asked the members to consider how EPA can articulate a vision for citizen science that aligns with tribal needs. He also would like TSC input about the process for having a dialogue with tribes and obtaining tribal review of the vision document.
- Citizen science involves the public in scientific research, often in collaboration with professional scientists and scientific organizations. Engaging volunteers provides a transformational approach to environmental protection.
- In March, EPA released a quality assurance handbook for citizen science with accompanying templates and real-world examples to help citizen scientists and organizations determine what quality of data is needed for different decisions. The templates are based on EPA's quality assurance requirements for Agency-funded projects. The next phase is training and outreach about the handbook.
- EPA is creating a unified citizen science vision to guide Agency activities. The draft builds on ideas from EPA's Office of the Inspector General (OIG)—which recently reviewed EPA's use of citizen science—and the NACEPT reports. The draft also draws on the experiences of Agency programs and regions. It explains EPA's current use of citizen science and describes a strategic vision for the future and the necessary actions to achieve that vision. EPA will share the draft to the TSC in October for comment.

- Many tribes already engage in citizen science using a broad range of approaches within a wide array of topics. EPA would like tribal input about traditional ecological knowledge and how to engage tribal youth in STEM education. The Agency also needs to align EPA, state and tribal interests and activities.
- EPA uses citizen science in its work with communities on local environmental problem-solving, for monitoring, and in its research and education programs. Volunteers can be involved in scientific research and monitoring in many different ways, and communities can help to define research questions, collect data, process and analyze collected data, and disseminate results.
- EPA's interest in citizen science is driven by legislation, White House policy directives, NACEPT and Government Accountability Office reports, the EPA OIG review, and EPA's strategic plan.
- The OIG review found that the Agency's current citizen science activities lack a comprehensive vision and strategy. OIG recommended that EPA establish a strategic vision for managing the use of citizen science, issue a quality assurance handbook for citizen science, build capacity for using citizen science, and prepare an assessment of data requirements for using citizen science data.
- The proposed future vision includes two main tenets: (1) The public is valued and empowered to help advance scientific knowledge that informs environmental protection actions. (2) Citizen science data are abundant, accessible and useful for environmental decision-making.
- The 10 proposed principles to guide citizen science at EPA are for the Agency to (1) design for scientific quality, (2) plan and document data quality, (3) maximize transparency and accessibility, (4) expand intergovernmental partnerships, (5) leverage collaborative networks, (6) encourage a diversity of project approaches, (7) integrate it into EPA program operations, (8) build capacity for place-based problem-solving, (9) create equity in community projects, and (10) use innovation, experimentation and evaluation.
- EPA's implementation action areas to turn the principles into practice are to (1) implement an EPA data management strategy for citizen science, (2) increase staff skills and institutional capacity within EPA, (3) expand EPA cooperation with states and tribes, (4) strengthen collaborative partnerships and multistakeholder networks, (5) increase private-sector understanding of and participation in citizen science, (6) support community-driven citizen science, (7) incorporate citizen science into EPA program strategies, and (8) define metrics to measure the value and effects of EPA citizen science projects.
- Increased public participation can result in engaged communities, collaborative governance, a common vision, actionable information, shared knowledge, environmental literacy, and efficiency and effectiveness.
- EPA is interested in learning how it can support tribal interest in citizen science. Jay's ideas are to work through the TSC, share tribal success stories, develop tribal citizen science toolkits, and facilitate tribe-to-tribe resource exchange and knowledge sharing. He asked the TSC members for their thoughts on these ideas and for additional ideas that they may have.
- José also asked the TSC members to share any examples of tribal citizen science projects of which they are aware.
- *Discussion*
- Lee Juan Tyler commented that Region 10 focuses on climate change projects, including obtaining input from tribal elders and the significance of water to all life. He described cases of botulism that killed tens of thousands of waterfowl and asked EPA to protect the water of life.

- Luke Hullinger reported that Region 5 had provided radon test kits to communities to determine areas of concern and then disseminated the information to communities.
- Jay noted that climate change issues are ideal for citizen science approaches. He also described a radon citizen science project in Puerto Rico funded by EPA that used a community-based approach to determine radon “hot spot” areas with low-cost sensors.
- Katie Tiger described an air sensor co-location study that her tribe worked on with EPA to determine how well low-cost air sensors compare to higher cost sensors used for National Ambient Air Quality Standard monitoring. Jay added that an upcoming project will include Katie’s tribe, as well as two other tribes.
- In response to a question from José, Jay explained that studies undertaken by high school and college students can be considered citizen science, but the projects must go beyond environmental education and use volunteers to expand scientific knowledge.
- Jay confirmed for Karen Hamernik that the network to collect information about harmful algal blooms (HABs) is considered citizen science; the ability to provide early warnings about issues of concern, such as HABs, is a growing part of citizen science. Photos of algae forwarded to scientists by volunteers allow scientists to identify the species and determine whether it is toxic and may form a HAB.
- Trevor White asked how useful data from the LEO Network has been, and Jay responded that he was unsure but that Region 10’s Santana Gay may know. Lon volunteered to contact her for an update.
- Neil Patterson explained that the term “citizen” is a delicate subject for the Haudenosaunee Nation, and as EPA moves forward in engaging tribes in citizen science, it may be useful to consider the language and terminology. EPA also must develop clear data-sharing protocols and give large-scale consideration about the interface between tribal nations and citizen science. Jay agreed that language is important and can be problematic. The term “citizen science” has been politicized and can be divisive, and EPA has discussed this aspect a great deal and determined that individuals and organizations should use the term with which they are most comfortable (e.g., public participation in environmental science, volunteer monitoring). The intent of the word “citizen” is to convey the sense of a citizen of the world rather than the geopolitical definition. EPA is exploring data protocols. Jeff noted that his tribe, as a sovereign nation, uses the term “citizen” to denote its citizens and added that he looks at EPA-developed citizen science tools as those that he can use internally without the need to share data outside of his tribe.
- Jay requested that the TSC consider a process for obtaining tribal input about the draft vision without overwhelming tribes. Jeff suggested that EPA work with the other EPA-Tribal Partnership Groups, potentially by attending the monthly calls of these groups. José added that Regional Tribal Operation Committees (RTOCs) would be another potential source of input.
- In response to a question from Karen H., Monica explained that some TSC members serve or have served on other EPA-Tribal Partnership Groups, such as the National Tribal Air Association and Tribal Waste and Response Steering Committee.
- Tribal Representatives who would like to submit comments about the guiding principles that Jay presented will submit them to Monica and José, who will forward them to Jay.

TSC Business Items

- *TSC Fall 2019 Face-to-Face Meeting*

- The TSC Fall 2019 Face-to-Face Meeting will be held November 13–15. Tuesday, November 12, and the afternoon of Friday, November 15, will be allotted for travel to and from the meeting location at EPA's Atlantic Ecology Division (AED) laboratory in Narragansett, Rhode Island.
- Monica is working with the Tribal Representatives to collect their travel preference forms. It is very important to include any plans to rent a car on the form. She is willing to meet with Tribal Representatives to explain the forms to them. These forms need to be submitted as soon as possible.
- Monica and José are meeting with the AED laboratory director on September 18.
- The deadline for members to book the hotel at the negotiated government rate is October 31.
- Monica is working with the Region 10 RTOC Chair to find an Alaska representative to attend the face-to-face meeting.
- TSC members may be polled about AED tour options.
- Monica reported that Billy Longfellow may present about tribal projects; she is meeting with the Region 1 RTOC to invite nearby tribes to participate and/or present, as well.

Announcements

- Page, along with Tracy Horst of the Choctaw Nation, presented a session on raising environmental awareness through public outreach at the Tribal Lands and Environment Forum (TLEF). They will present this session again on an EPA webinar on October 22, 12:00–1:30 p.m. CDT.
- Josh Tweeton reported that the Region 8 RTOC meeting is being held the following week on the reservation of the Yankton Sioux Tribe of South Dakota. The first 2 days will be a climate change adaptation workshop. The final day will be for RTOC business.
- Lon attended TLEF and viewed several worthwhile presentations and sessions, including a presentation by Kelly Wright. A session on EPA and tribal environmental planning was well done, as was a listening session on water issues of interest to tribes.
- Lee Juan reported that a mining summit in Region 10 sponsored by the Affiliated Tribes of Northwest Indians has been rescheduled for October. The region is working on reclamation projects. He invited the TSC to visit the area to see the various projects.
- Trevor explained that participants of a recent environmental summit in Region 1 discussed finding a way to keep illegally introduced largemouth bass from entering the upper headwaters of tribal waters while still allowing alewives to enter Grand Lake. The concern is that the bass will destroy the salmon fishery in the lake. Trevor would be interested in speaking with anyone who has experience with allowing certain species in while keeping others out. Lee Juan thought that his fishery staff might be able to help.
- Beth Jackson reported that EPA's Exchange Network Tribal Governance Group and the Institute for Tribal Environmental Professionals will be hosting a tribal environmental data and technical academy. The training-focused event will take place November 5–7 in Flagstaff, Arizona, and will address needs that tribes have brought forth in the past. This event replaces the regular Exchange Network meeting that was canceled as a result of the government shutdown in early 2019. The regular meeting will resume in 2020.
- Karen Gude provided several Office of Water updates:

- EPA and the U.S. Army Corps of Engineers signed the final Waters of the United States rule the previous week. The new (step 1) rule repeals the 2015 definition of waters of the United States and affects Clean Water Act (CWA) jurisdiction, which will revert to the regulatory framework in place prior to the 2015 rule. The proposed step 2 rule will revise the definition of waters of the United States. EPA is reviewing 620,000 comments about the step 2 proposal received during the public comment period.
- EPA issued a proposed rule in August regarding implementation of CWA Section 401 certification programs. Sessions about the proposed rule were presented at TLEF. EPA also has held two in-person tribal meetings about the rule in Salt Lake City, Utah, and Chicago, Illinois. Additional tribal meetings may be held as a result of requests. The 60-day public comment period ends on October 21.
- The Office of Water is conducting a formal tribal consultation about the 2020 Drinking Water Infrastructure Needs Survey and Assessment.

Next TSC Teleconference

- The next TSC teleconference will be held on Monday, October 21, 2019, from 2:00 to 3:30 p.m. EDT.